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ABSTRACT

This manual was prepared to provide interested persons with information concerning the standards and administrative guidelines governing apprenticeship programs for electricians in the United States. These standards provide the basis for on-the-job training programs and classroom job related education leading to the graduation of qualified journeymen electricians. A policy statement, definition of terms, and information concerning the organization and duties of the apprenticeship program and requirements for admission into it are included. (SN)

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NATIONAL PATTERN STANDARDS

of

APPRENTICESHIP AND TRAINING

FOR ELECTRICIANS

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
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Formulated By The

ASSOCIATED INDEPENDENT ELECTRICAL CONTRACTORS OF AMERICA, INC.

1907 North Lamar (P.O. Box 387)
Austin, Texas 78767

In Cooperation With

BUREAU OF APPRENTICESHIP AND TRAINING
US DEPARTMENT OF LABOR

Washington, D.C.

AIECA

1972

UT 021 061

CODE OF ETHICS

I

We fully appreciate the honor and responsibilities that go with membership in this Association.

II

We therefore pledge ourselves to always conduct our business affairs in such an ethical manner as will uphold and elevate the prestige of this Association.

III

We solemnly pledge ourselves to zealously guard the best interests of our industry and the public at all times.

IV

We shall recommend adequate wiring and quality materials on every installation.

V

We shall train ourselves and our employees to do all work in accordance with the Local and National Electrical Codes and Good Engineering Standards.

VI

We shall keep ourselves and our employees posted on the latest progressive engineering ideas and developments in materials and equipment.

VII

We shall maintain good working conditions in our shops and on our jobs and pay our employees a fair price for their labor.

VIII

We shall word all our contracts in a clear and definite manner.

IX

We shall live up to all bonifide agreements with Customers, Suppliers, and Employees.

X

We shall treat our Customers, Competitors, and Employees fairly at all times.

XI

We shall not knowingly indulge in any unfair trade practices.

XII

We pledge ourselves to attend meetings regularly and take an active part in Association affairs.

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29 March 1972

This is a time of great challenge and great opportunity in the construction industry, and particularly in the electrical segment of that industry. Population growth, linked with the dynamic free-enterprise economy of the United States of America, has resulted in a continuing construction "boom," while technological progress has caused far-ranging changes in how electrical construction is carried out.

Thus the electrician's trade is one that will be around for a long time and will be expanding with new job opportunities and new specialties as far into the future as we can see.

In addition to a lifetime of good earnings, the trade offers an opportunity for substantial contribution to the welfare and comfort of the community, with all the personal satisfactions that result from both of these factors. But high quality performance as a construction electrician is absolutely dependent upon high quality training, and it is to accomplish this that AIECA has invested time, effort, and money to develop, establish, and secure Federal registration for the apprentice training program described in this publication.

I strongly urge interested and qualified persons to give serious consideration to enrolling in this program as the first step toward making this a life's work. It is an endeavor in which one can succeed on the basis of his intelligence, energy, and application of himself to the task, and one in which "what a man has in him" is the main thing that counts.

Contact your local AIECA Chapter and find out how you can be part of this exciting program!

Billy L. Askea

Bill L. Askea
National President (Acting)

United States Department of Labor

Bureau of Apprenticeship and Training

NATIONAL PATTERN OF APPRENTICESHIP STANDARDS FOR THE ASSOCIATED INDEPENDENT ELECTRICAL CONTRACTORS OF AMERICA, INC.
Austin, Texas (Headquarters)

Certificate of Registration

for the trade classification of ELECTRICIAN (Wireman)

Issued in recognition of the above apprenticeship system, registered as part of the National Apprenticeship Program, in accordance with the standards recommended by the

Federal Committee on Apprenticeship

March 29, 1972
DATE

SECRETARY OF LABOR

ASSISTANT SECRETARY FOR MANPOWER

DEPARTMENT OF LABOR · UNITED STATES OF AMERICA ·

N-90056
REGISTRY NO.

MANPOWER ADMINISTRATOR

BUREAU ADMINISTRATOR
BUREAU OF APPRENTICESHIP AND TRAINING

III.

U.S. DEPARTMENT OF LABOR
MANPOWER ADMINISTRATION
WASHINGTON, D.C. 20210

March 29, 1972

Mr. Billy L. Askea
Acting President
Associated Independent Electrical
Contractors of America, Inc.
1907 North Lamar
Austin, Texas 78767

Dear Mr. Askea:

It gives me great pleasure to inform you of the registration of the National Pattern of Apprenticeship Standards for the Associated Independent Electrical Contractors of America, Inc. with the Bureau of Apprenticeship and Training, U. S. Department of Labor.

You are to be commended for providing a uniform pattern of apprenticeship standards for adoption by your local Chapters.

The active interest and cooperative efforts of your local members will undoubtedly reflect the extent to which success is achieved in producing the high calibre craftsmen so essential to your industry.

The assistance of the staff of the Bureau of Apprenticeship and Training and its cooperating State Apprenticeship Agencies are available to help attain the goals established in your national apprenticeship standards.

Sincerely,

Hugh C. Murphy

HUGH C. MURPHY
Administrator
Bureau of Apprenticeship
and Training

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APPRENTICESHIP AND EDUCATION
1972

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PREFACE

Recognizing the technological changes new materials, and new methods which are constantly being incorporated into the practice of electrical construction, and realizing the need for more highly qualified construction mechanics, with the ability to solve the advanced mechanical problems encountered in the construction industry, and appreciating the salutary effects upon workers, contractors, and the public accruing from effectively meeting these needs, the

ASSOCIATED INDEPENDENT ELECTRICAL CONTRACTORS OF AMERICA, INC., resolved to establish and provide the necessary standards and administrative guidelines for Apprenticeship Programs, in cooperation with the BUREAU OF APPRENTICESHIP AND TRAINING, US DEPARTMENT OF LABOR.

These standards shall provide the basis for comprehensive programs of on-the-job training and classroom job related education leading to the graduation of fully qualified Journeyman Electricians. Periodic review and revision of these standards as herein provided will assure continuing upgrading and updating, and will facilitate replicability of the standards in all geographical areas of the United States where AIECA chapters exist or shall be established.

JAMES C. McBRIDE, Ed.D.
National Director of Apprenticeship
AIECA

VI.

POLICY STATEMENT

On and after the date upon which these Standards of Apprenticeship are duly executed and adopted by a local Chapter of the AIECA, it shall be the policy of each subscribing Employer member of the local Chapter that all Apprentices employed in the electrician's trade shall be governed by the terms of these standards, hereinafter referred to as "Local Apprenticeship Program."

Local conditions or requirements may warrant modification of some provisions of the local apprenticeship program. Whenever possible, such modifications should be limited to the absolute minimum in order to assure uniformity in the training of apprentices throughout the industry and to obtain local registration. Such modifications shall be submitted for information purposes to the National Advisory Committee.

LOCAL APPRENTICESHIP PROGRAM

DEFINITIONS

The following terms as used herein shall be construed as follows:

1. Employer shall mean any member of an AIECA Chapter subscribing to the local apprenticeship program adopted by the Chapters, per agreement shown on page 21.

2. Registration Agency shall mean the Bureau of Apprenticeship and Training, US Department of Labor; or, in states where a recognized state apprenticeship agency is established, it shall mean such agency.

3. Apprentice shall mean an individual at least 18 years of age who has signed an Apprenticeship Agreement with his Employer to learn the Electrician's trade as outlined herein and who is registered with the Registration Agency.

4. Apprenticeship Agreement shall mean a written agreement between the Employer and the Apprentice and, if the Apprentice be a minor, the parent or guardian of the Apprentice. The agreement shall be approved by the Committee and registered with the Registration Agency.

5. National Advisory Committee shall mean the Apprenticeship and Training Committee of the National AIECA organization, established under the National By-Laws of the Association, to provide assistance to the association's chapters in implementing these standards locally, to oversee general conformity of local programs to these standards and to other registered apprenticeship programs in the locality concerned, and to act as an appellate committee from the Apprenticeship and Training Committee of the local chapter (q.v.) in disputes arising from interpretation of these standards.

6. Committee shall mean the Apprenticeship and Training Committee of the local Chapter, Associated Independent Electrical Contractors of America, Inc., organized pursuant to these standards and the local Chapter By-Laws.

7. Supervisor of Apprentices shall mean an individual designated by the Employer to perform the duties outlined in these standards, who shall work in cooperation with the Apprenticeship Coordinator and the Apprenticeship Training Committee.

8. Apprenticeship Coordinator shall mean that person appointed by the Board of Trustees of the local Chapter, Associated Independent Electrical Contractors of America, Inc., who shall be charged with coordinating the activities of apprentices in the training program on the job and in the classroom, through visitation, conferences, written reports, and telephone conversations. The Coordinator shall be the official interface between the Chapter and the Registration Agency and shall report to the Chairman of the Committee.

9. Chapter shall mean the local Chapter, Associated Independent Electrical Contractors of America, Inc.

10. Standards shall mean this entire document, including the title page, preface, and numbered pages thereof.

APPRENTICESHIP COMMITTEE--ORGANIZATION

1. The administrative body under the local apprenticeship program shall be the Apprenticeship and Training Committee of the local Chapter, AIECA, signatory hereto.

2. The Committee shall consist of four members appointed by the President of the Chapter, and of the Executive Director of the Chapter or Apprenticeship Coordinator, who shall serve ex-officio. All members of the Committee shall serve for one-year terms, but any member of the Committee whose firm or company shall cease to be a member of the local Chapter, AIECA, shall cease to serve on the Committee. Vacancies on the Committee shall be filled by the President of the Chapter in the same manner as the original appointments were made.

3. The Committee shall choose a Chairman and a Secretary, and they shall continue to have the right of voice and vote on all matters before the Committee.

4. The Committee shall meet at least once each calendar month at a time and place to be determined by the Chairman, due notice being given to each committee member.

5. A quorum of the Committee for the transaction of business shall be three members or two members and the Executive Director or Apprenticeship Coordinator of the Chapter. The Committee shall establish such additional rules and regulations to govern its administrative procedures as shall from time to time be required. All revisions, changes, and alterations in the local apprenticeship program shall be submitted for registration to the Registration Agency and shall thereupon become a part of the program, but no modification or revision of the local program shall alter Apprenticeship Agreements then in effect without the consent of all parties thereto.

APPRENTICESHIP COMMITTEE--DUTIES

1. The Committee shall screen and select qualified applicants for apprenticeship, and refer such applicants to the Employer. Adequate records will be maintained of the selection process, including interviews and test results, in such manner as to permit identification of minority applicants. Records on program operation will also be maintained to facilitate determination of compliance with the Committee's Equal Opportunity Standards and affirmative action plan. All such records will be maintained for 5 years following the beginning of the training cycle for which application was made.

2. The Committee shall establish minimum standards of education and work experience for apprentices.

3. The Committee shall hear and adjust all complaints of violation of apprenticeship agreements. The employer or the apprentice may consult with the Committee at any time for an interpretation of any provision of the standards over which there may be a dispute. The Registration Agency may likewise be consulted by either party to an apprenticeship agreement or by the Committee for an interpretation of any provision over which differences may occur.

4. The Committee shall approve and cause the Chairman to sign apprenticeship agreements between the apprentice and an Employer and submit the agreements to the Registration Agency for registration. The Committee shall notify the Registration Agency of all cancellation, suspensions, reinstatements, and completions of apprenticeships.

5. The Committee shall require the Apprenticeship Coordinator to arrange for tests to determine progress of apprentices in technical knowledge and manipulative skills, in cooperation with the classroom instructor and the employer.

6. The Committee shall endeavor to provide continuous employment for apprentices insofar as possible and shall maintain appropriate records to show previous work experience for credit toward apprenticeship whenever a transfer becomes necessary. The Committee shall further have the responsibility and authority to assign apprentices among various subscribing employers so as to assure well-rounded work experience conforming to the on-the-job training outline herein contained.

7. The Committee shall require the Apprenticeship Coordinator to maintain a record on each apprentice, showing his progress in classroom instruction and on-the-job experience.

8. The Committee shall make periodic reports to the Chapter covering the work of the Committee and progress of training and shall make an annual report as of the last day of December of each year summarizing the year's activities of the Committee.

9. The Executive Director of the Chapter or one member of the Committee shall visit the school where job-related education is conducted, at least once each calendar month, to assure compliance with these standards.

10. The Committee shall notify the Registration Agency and the Chapter when apprentices have completed their training program and shall request issuance of a Certificate of Completion.

11. The Committee shall be generally responsible for the successful operation of the Apprenticeship Program according to these standards.

APPRENTICESHIP COORDINATOR--DUTIES

The Apprenticeship Coordinator shall be that officer appointed by the Board of Trustees of the local Chapter to coordinate the activities of apprentices in the training program on the job and in the classroom. He shall report to the Chairman of the Committee and shall be the official interface between the Chapter and the Registration Agency and shall effect necessary liason with the National Advisory Committee to assure general conformity of the local program with these standards. He shall keep or cause to be kept accurate records of selection procedures as elsewhere required in these standards and shall maintain

continuing records on each apprentice showing the classroom instruction and on-the-job training hours completed by category of hours hereinafter provided. He shall promptly inform the employer of failure on the part of any apprentice to pursue successfully the classroom and/or on-the-job training requirements of these standards and shall work with the apprentice, the employer, and the Committee to bring said Apprentice up to acceptable levels of performance. He shall serve as an ex-officio member of the Committee if the local Chapter shall not have employed an Executive Director, and in the absence of such Executive Director shall meet with the Committee in the place and stead of the Executive Director. He shall monitor the operation of the program by visits to job sites and classrooms and shall act generally as the executive officer of the Committee. His organizational relationship to the Executive Director of the Chapter, if there be one, shall be as determined by the local Board of Trustees.

TERM OF APPRENTICESHIP

The term of apprenticeship shall consist of 8000 hours of on-the-job training as hereinafter described over a period of 4 calendar years, and a minimum of 144 hours per year of classroom job-related instruction as hereinafter described. All apprentices employed under this local program shall be trained in all branches of the trade necessary to qualify them on completion as Journeymen Electricians.

APPLICATIONS

Application for entry into the local Apprenticeship Program shall be made to the Committee on forms provided by the Committee and obtainable from the offices of the Chapter.

MINIMUM QUALIFICATIONS FOR APPRENTICESHIP

1. Applicants must be between 18 and 35 years of age. If the applicant is a veteran, the maximum age limit shall be increased by the number of years in the Service, not to exceed 4 years of such service, and provided application for admission to the program is made within 6 months of discharge.

2. The applicant must have completed four years of high school or must have successfully passed the GED equivalent.

3. He must be physically fit to perform the work of the trade. A physical examination will be required after the interview by the Committee and before placement on the job, such physical examination to be at the Committee's expense.

4. He must have some mode of transportation to the employer's place of business and/or job site and to the place where classroom job-related instruction is conducted.

RATING SYSTEM

Applicants who meet the minimum qualifications enumerated above shall be ranked objectively, and selections for apprenticeship shall be made in descending order of these rankings, from the highest on down. The recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex. The Committee will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30.

Ranking criteria are as follows:

Aptitude Test Results (GATB S-72-R administered by State Labor Dept. or other agency) Passed-Rate H				20
Educational Background--subjects related to the trade (from applicant's school transcript)				25
High School General or Related Math--5 Physical Science--10; Algebra--10				
Favorable References and Conduct Record				11
Interview				24
Interest	3 x	Value Ratings:	Exceptional --	3
Sincerity	3 x		Good	2
Adaptability	2 x		Fair	1
			Unsatisfactory	0

Example:	Exceptional interest:	3 x 3 = 9	
	Fair sincerity	3 x 1 = 3	
	Good adaptability	2 x 2 = 4	
	Total on this section	16	points

Previous Experience 20

Related work in military service--10
Related civilian work--10

A period of at least one month shall be allowed for new apprenticeship applicants to apply, and for apprenticeship applicants to reapply. New and previous applicants will be ranked on the basis of their comparative qualifications. Qualified applicants shall be retained on the list of eligibles subject to selection for a period of 2 years.

Information on apprenticeship openings shall be posted at the normal place of application for apprenticeship and disseminated to the local Employment Service offices, community organizations which can effectively reach minority groups, minority newspapers, The Bureau of Apprenticeship and Training, and the local schools at least one month prior to the date when such applications will be accepted. At least one month will be allowed for acceptance of apprenticeship applications. Records of the selection process including interviews will be maintained for a period of five years from the date that training begins for a given Apprentice class. (See p. 14 for detailed Affirmative Action and Outreach Plan)

OBLIGATION OF THE EMPLOYER

The employer agrees that the apprentice will be worked under such conditions as will result in normal advancement, and will require the apprentice to make satisfactory progress in both on-the-job and classroom job-related instruction. Employer also agrees that the apprentice shall not be employed in a manner that is in conflict with these standards.

OBLIGATION OF THE APPRENTICE

After making application for apprenticeshi p through the Committee and having read the rules and standards formulated by said Committee providing for his training, and understanding and acquiescing to such standards and all conditions therein, the apprentice agrees to serve such time and perform such on-the-job training and classroom job-related instruction as the Committee deems necessary to qualify him as a journeyman electrician.

PROBATIONARY PERIOD

All apprentices employed pursuant to these standards shall be on probationary status for not to exceed 2000 hours or 1 year, whichever shall occur first. During the probationary period, the apprenticeship agreement may be cancelled by the apprentice or by the employer without the formality of hearing and without recourse. If the agreement shall be terminated after the apprentice has completed the probationary period, the reason for termination shall be reported to the Committee and to the Registration Agency. When an employer terminates an apprentice who has completed the probationary period, he shall immediately notify the Committee in writing, giving the name of the apprentice, the reason for termination, and the effective date of same. Said apprentice will then be interviewed by the Committee and placed with another employer where appropriate.

Disposition of such cases shall be made by the Committee within 30 days of the receipt of notice of termination, and the Registration Agency shall be notified.

APPRENTICE REGISTRATION

The apprenticeship agreement shall be signed by the apprentice (and his parent or guardian if he be a minor), the employer, and the Chairman of the Committee, as hereinbefore provided. Such agreement shall contain a special provision making these standards a part of the agreement as though expressly written therein. A copy of the registered apprenticeship agreement shall be provided each of the following: The Committee, the employer, the apprentice, the Registration Agency, and the local area office of the Bureau of Apprenticeship and Training.

JOB-RELATED EDUCATION

Each apprentice registered under the local program shall undergo a minimum of 144 clock hours of job-related (classroom) instruction each calendar year for four years and shall be required to pass satisfactorily such examinations as may be prescribed by the Committee before being granted a Certificate of Completion.

Attendance at job-related classes shall not be considered hours worked when conducted outside of regular working hours, and the apprentice shall not be paid for time spent in such classes.

The Apprenticeship Committee shall arrange for such classes and if not available through local schools, the Committee shall provide equivalent trade, industrial, or correspondence courses.

SUPERVISION OF APPRENTICES

During the entire term of the apprenticeship, the apprentice shall be under the jurisdiction of the Committee, and the Committee shall have the authority to protect the apprentice's welfare, as well as to instruct, direct, and discipline him.

Each employer shall designate a supervisory member of his staff to be responsible for supervision of the apprentice's on-the-job training. The Supervisor shall sign the apprentice's daily job record and shall grade the quality of his performance on the job. He shall assure that the apprentice is assigned to a competent journeyman and that his work is rotated so as to insure training in all phases of the work.

RATIO OF APPRENTICES TO JOURNEYMEN

Employers agree that only such number of apprentices will be employed as can be given adequate training and supervision, as well as a reasonable opportunity for employment in the trade after completion. The number of apprentices employed by a given employer shall not exceed 1 apprentice for the first journeyman electrician and 1 apprentice for each 3 additional journeymen electricians employed.

In the event of a lay-off of journeymen, apprentices shall be laid off in the same ratio as they were hired; moreover, the furloughed apprentices shall be rehired in the same order as they were laid off, i.e., the first apprentice laid off will be the first rehired.

HOURS OF WORK

The hours of work for apprentices and the conditions associated therewith shall be the same as those for journeyman electricians. The apprentice shall not be required or permitted to work such hours as will interfere with his attendance at classroom job-related instruction, except in cases of emergency. In each case, the Committee shall be notified in writing of the nature of the emergency, and such notification shall be on company stationery and signed by an officer of the employer.

WAGES FOR APPRENTICES

Apprentices shall be paid on a progressively increasing schedule of wages based on a percentage of the minimum wage being paid journeymen. The minimum rate established and set forth for journeyman electricians is $_____ (_____dollars) per hour, and the percentage to be paid apprentices shall be as follows:

1st	1000 hours	50% of journeyman's rate
2nd	1000 hours	55% "
3rd	1000 hours	60% "
4th	1000 hours	65% "
5th	1000 hours	70% "
6th	1000 hours	75% "
7th	1000 hours	80% "
8th	1000 hours	85% "

The wages of apprentices shall be calculated by applying the percentages shown above to the journeyman wage, or to $_____ per hour, whichever is greater. The journeyman wage for each job shall be determined by taking the average of all hourly regular-time journeyman wages paid during the first two weeks of work on the job. The journeyman wage for each job shall be calculated at the end of the first two weeks of work on the job and thereafter at 90-day intervals, in order to allow sufficient time for the work force on the job to stabilize and to check the accuracy of the journeyman wage determination. The Committee shall, at its

first meeting after the first day of January each calendar year, examine the minimum journeyman wage stated in the program and adjust the said minimum journeyman rate to the actual average hourly wage of journeymen electricians employed by participating contractors during the calendar year just ended, and shall file an amendment with the Registration Agency as provided under ADMENDMENT TO THESE STANDARDS, infra.

CREDIT FOR PREVIOUS EXPERIENCE

Apprentices who receive credit for previous experience shall be paid the rate for the period to which such credit advances them. Credit for previous experience may be granted after evaluation by the Committee and a trial period of no less than 30 nor more than 60 days, with the agreement of the employer. Credit may be also granted for completion of related technical training upon submission of satisfactory evidence to the Committee and completion of such tests as the Committee may prescribe.

SAFETY CLAUSE

Each apprentice shall be provided with initial indoctrination and instruction relative to company safety policy, reporting of accidents, and availability of first-aid and medical facilities.

The employer shall at all times exercise reasonable precaution to assure the health and safety of the apprentices engaged in the performance of work and shall comply and cause all employees, including apprentices, to comply with all applicable provisions of Federal, State, and Municipal safety, health, and sanitation statutes and codes.

As an integral part of this training program, the Apprenticeship Coordinator, Supervisor of Apprentices, and/or instructor of the classroom job-related education shall provide competent training and instruction pertaining to safe work habits and keep the apprentice informed of methods necessary to perform all phases of work in a proper and safe manner, or cause the same to be done.

CONSULTANTS

The Committee may request other interested agencies and/or organizations to designate representatives to serve as consultants, without vote, on special problems related to the interests of the organization and/or agency represented.

AMENDMENT TO THE PROGRAM

This program shall not be revised or amended except by a 2/3 affirmative vote of the Committee, provided a quorum be present, and then only after 30 days' notice in writing to all members of the Committee setting out the exact wording of the proposed change. All amendments and revisions so adopted shall be filed with the Registration Agency, and all subscribing Employers shall be notified.

OFFICIAL APPROVAL OF THESE STANDARDS

These standards shall become operative as the basis for local programs of apprenticeship under the aegis of AIECA upon formal approval by the National Board of Directors, Associated Independent Electrical Contractors of America, Inc., and formal approval by the Bureau of Apprenticeship and Training, US Department of Labor.

OFFICIAL APPROVAL OF LOCAL PROGRAMS

Local programs predicated upon these standards must be formally approved as provided in the By-Laws of the local Chapter, Associated Independent Electrical Contractors of America, Inc., and by the Bureau of Apprenticeship and Training, US Department of Labor, or the recognized state apprenticeship agency, if established in the state where the program is to be carried out. Local chapters

of AIECA will secure the advice and assistance of the National Advisory Committee before submitting a local program for approval in order to assure general conformity with these standards.

AFFIRMATIVE ACTION AND OUTREACH PLAN

The provisions of Title 29A, Part 30, "Equal Employment Opportunity in Apprenticeship and Training," Federal Register, vol 36 number 68, dated Thursday, 8 April, 1971, are herewith adopted and incorporated as part of these standards. including the following specific pledge:

> The recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30.

The local Chapter of AIECA shall adopt procedures, methods and program for the identification, positive recruitment, training, and motivation of present and potential minority group apprentices, and to allow full utilization of minority group manpower potential. The procedures, methods and program for such positive action shall be exemplified by, but not limited to, the following activities:

(1) Dissemination of information concerning the nature of apprenticeship, availability of apprenticeship opportunities, sources of apprenticeship opportunities, sources of apprenticeship applications, and the equal opportunity policy of the sponsor. For programs accepting applications only at specified intervals, such information shall be disseminated at least 30 days in advance of the earliest date for application at each interval. For programs customarily receiving applications throughout the year, such information shall be regularly disseminated but not less than semiannually. Such information shall be given to the Department, local schools, employment service offices, community

organizations which can effectively reach minority groups, and published in newspapers which are circulated in the minority community as well as the general areas in which the program sponsor operates.

(2) Participate in annual workshops conducted by employment service agencies for the purpose of familiarizing school, employment service and other appropriate personnel with the apprenticeship system and current opportunities therein.

(3) Cooperation with local school boards and vocational education systems to develop programs for preparing students to meet the standards and criteria required to qualify for entry into apprenticeship programs.

(4) Internal communication of the sponsor's equal opportunity policy in such a manner as to foster understanding, acceptance, and support among the sponsor's various officers, supervisors, employees, and members and to encourage such persons to take the necessary action to aid the sponsor in meeting its obligations under this part.

(5) Engaging in programs such as outreach for the positive recruitment and preparation of potential applicants for apprenticeships; where appropriate and feasible, such programs shall provide for pretesting experience and training. If no such programs are in existence, the sponsor shall seek to initiate these programs, or, when available, to obtain financial assistance from the Department. In initiating and conducting these programs, the sponsor may be required to work with other sponsors and appropriate community organizations.

(6) To encourage the establishment and utilization of programs of preapprenticeship, preparatory trade training, or others designed to afford related work experience or to prepare candidates for apprenticeship, a sponsor shall make appropriate provision in its affirmative action plan to assure that those who complete such programs are afforded full and equal opportunity for admission into the apprenticeship program.

(7) Utilization of journeymen to assist in the implementation of the sponsor's affirmative action program.

(8) Granting advance standing or credit on the basis of previously acquired experience, training, skills, or aptitude for all applicants equally.

(9) Admitting to apprenticeship persons whose age exceeds the maximum age for admission to the program, where such action is necessary to assist the sponsor in achieving its affirmative action obligations.

(10) Such other action as to insure that the recruitment, selection, employment, and training of apprentices during apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex; such as; General publication of apprenticeship opportunities and advantages in advertisements, industry reports, articles, etc.; use of present minority apprentices and journeymen as recruiters; career counseling; periodic auditing of affirmative action programs and activities; and development of reasonable procedures between the sponsor and employers of apprentices to insure that equal employment opportunity is being granted including reporting systems, on site reviews, briefing sessions, etc. The affirmative action program shall set forth the specific steps the program under this paragraph (c) sponsors intend to take, in the above areas. Whenever special circumstances warrant, the Department may provide such financial or other assistance as it deems necessary to implement the above requirements.

(11) The Committee will review the affirmative action plan herein described at least annually, and within 30 days of the beginning of any new apprentice class, and will update and/or revise its provisions where appropriate to facilitate carrying out the intent of the Committee.

COMMUNITY ANALYSIS, GOALS, AND TIMETABLES

Each local program shall be accompanied by an analysis of the minority-race makeup of the community (the area covered or proposed to be covered by the work area of members of the Chapter) in the following format:

ANALYSIS TO DETERMINE DEFICIENCIES

(a) Identification of the area to be analyzed (Standard Metropolitan Statistical Area--SMSA--or other US Census or usable statistical zone, such as county or counties):

1. Total population....._____
2. White population....._____
3. Negro population....._____
4. Other population....._____
5. Total minorities (sum of 3 & 4 above)....._____
6. Percentage of minority population (5 divided by 1 above)....._____%

(b) Underutilization Factors:

1. Total apprentices....._____
2. Total whites....._____
3. Total minorities....._____
4. Percentage of minorities....._____%
5. Underutilization....._____%

GOALS AND TIMETABLES

(a) Underutilization....._____

(b) Total apprentices currently registered....._____

(c) Goal to eliminate underutilization....._____

(d) Timetable:

1st year (19__)....._____%

2d year (19__)....._____%

3d year (19__)....._____%

JOB-RELATED EDUCATION

Subjects	Hours
Orientation	3
Basic Electrical Mathematics	6
Safety and First Aid	9
Care and Use of Handtools	6
Care and Use of Power Operated Tools	12
Blueprint Reading and Electrical Symbols	15
Introduction to National Electrical Code	18
Electrical Fundamentals and Basic Theory	36
Principles of Alternating Current	23
Alternating Current Circuits	21
Principles and Circuitry of Direct Current	27
Portable Electric Measuring Devices	15
Wiring Methods	81
Low Voltage Circuits	14
Appliances	15
Interior Distribution	18
Industrial and Commercial Calculations	21
Motors and Generators	60
Practical Circuit Sketching	36
Transformers	35
Illumination and Design	15
Sub-Stations	21
Primary Distribution	25
Fundamentals of Electronics	19
Welding and Cutting	15
Total Hours (Classroom and Demonstration)	576

ON-THE-JOB TRAINING

PRELIMINARY WORK 600

Learning the names and uses of the equipment used in the trade: kind, size, & use of cable, wire, boxes, conduits & fittings, switches, receptacles, service switches, cutouts, etc.

Learning names and uses of the various tools used in assembling this material, care of these tools, and other instructions necessary

to familiarize the apprentice with the material and tools of the trade.

RESIDENTIAL AND COMMERCIAL ROUGH WIRING 2,500

Assisting in getting material from stock room.
Loading truck and unloading material and equipment on the job.
Laying out the various outlets, switches, receptacles, and other details of the job, from blueprints or by direction of the superintendent of construction.
Laying out the system with materials to be used where they are to be placed and other details as to how they shall be run
Cutting wire, cable, conduit, and raceway; threading and reaming conduit, boring and cutting chases under the direction of a journeyman.
Installing various kinds of wires, cables and conduits in accordance with requirements.
Assisting journeyman in pulling wires, attaching wires to fishtape and keeping wires from kinks or abrasions.
Connecting conductors to switches, receptacles, or appliances with proper methods of splicing, soldering, and taping.
Installing service switches or load center and sub-feeders and fastening up these parts, running raceways, and pulling in conductors under the direction of a journeyman.
Assisting in preparing lists of materials used, including names, number of pieces, or number of feet, etc. for office records.
Loading unused material and cleaning up job area.

RESIDENTIAL AND COMMERCIAL FINISH WORK 1,500

Connecting and setting switches, receptacles, plates, etc.
Installing proper size and types of fuzes for each circuit.
Installing and connecting various kinds of fixtures.

Tracing the polarity of conductors and devices.
Testing the circuit for grounds and shorts and locating and correcting job defects.
Assisting journeyman in installation and completion of work in accordance with the rules and regulations of the National Board of Fire Underwriters and special local regulations -- proper sizes of wires, service, conduits, etc.

INDUSTRIAL LIGHTING AND SERVICE INSTALLATION 2,000

Installing rigid conduit, electric metallic tubing, BX armored cable and wiremolds on all types of heavy electrical equipment and major size service entrance installations.
Wiring all types (gas, oil, stoker, etc.) heating equipment.
Installing wiring and controls for air conditioning.

TROUBLE SHOOTING 1,000

Repairing all kinds of electrical work.
Checking out trouble and making repairs under supervision of a journeyman.
Checking out trouble and making repairs without supervision.

MOTOR INSTALLATION AND CONTROL 400

Installing overcurrent devices.
Checking for proper installation and rotation.
Installing replacement motors.
Analyzing motor circuits and trouble shooting.
Installing emergency generators and controls.
Installing pushbuttons, pilot lights, relays, timing devices, and interlocking controls.

Total Hours On-the-Job Training 8,000

EMPLOYER ACCEPTANCE AGREEMENT

The undersigned_____
(Company or Employer)
hereby subscribes to the provisions of the Apprenticeship Standards formulated by the Associated Independent Electrical Contractors of America, Inc., and adopted by the _____Chapter, AIECA. We agree to carry out the intent and purpose of the said standards and to abide by the rules and decisions of the Apprenticeship and Training Committee established under the By-Laws of said Chapter and referred to in said Apprenticeship Standrards. We have been furnished a true copy of the standards and have read and understand them, and do hereby request certification to train_____ electrician apprentices under
(number)
the provisions of these standards, with all attendant rights and benefits thereof, until cancelled voluntarily or revoked for good cause by the Bureau of Apprenticeship and Training, US Department of Labor, or the state apprenticeship agency, if any. On the job, the apprentice is hereby guaranteed assignment to a competent journeyman and it is guaranteed that the work assigned to the apprentice will be rotated so as to insure training in all phases of work related to this tradè. The employer furthermore agrees to accept for employment apprentices who are selected and referred to him by the Apprenticeship and Training Committee.

Signed:_____ Date:_____

_____
(Title and Company name)

Disposition: Original--Apprenticeship and Training Committee,_____
Chapter AIECA

Copies---Employer
Bureau of Apprenticeship and Training, US Dept. of Labor
State Apprenticeship Agency, if established

SOCIAL SECURITY NO.

APPRENTICESHIP AGREEMENT
Between Apprentice and Employer

21

The employer and apprentice whose signatures appear below agree to these terms of apprenticeship:

The employer agrees to the nondiscriminatory selection and training of apprentices in accordance with the Equal Opportunity Standards stated in Section 30.3 of Title 29, Code of Federal Regulations, Part 30; and in accordance with the terms and conditions of the Chapter, AIECA Electrician App Stds which are made a part of this agreement.
(Name of Apprenticeship Standards)

The apprentice agrees to apply himself diligently and faithfully to learning the trade in accordance with this agreement.

Trade Electrician Term of apprenticeship 8000 hours/4 years
(Hours or Years)

Probationary period ..... Credit for previous experience .....

Term remaining ..... Date the apprenticeship begins .....

This agreement may be terminated by mutual consent of the parties, citing cause(s), with notification to the Registration Agency.

.....
(Signature of Apprentice)

.....
(Address)

.....
(Parent or Guardian)

.....
(Name of Employer - Company)

.....
(Address)

.....
(Signature of Authorized Official)

TO BE COMPLETED BY THE APPRENTICE:

Date of birth _____
Month Day Year

Check: Male _____ Female _____

If you consider yourself a member of one of the ethnic groups listed, please check:

Negro _____ American Indian _____

Oriental _____ Spanish American _____

Approved by ..... Joint Apprenticeship Committee

Date ..... by .....
(Signature of Chairman or Secretary)

Registered by .....
(Name of Registration Agency)

Date ..... by .....
(Signature of Authorized Official)

BAT-45 (Rev. 1969)

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PLEDGE AND APPROVALS

The recruitment, selection, employment, and training of apprentices during their apprenticeship shall be without discrimination because of race, color, religion, national origin, or sex. The sponsor will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30.

COMPLIANCE ASSURANCE

The sponsors of these Standards of Apprenticeship certify that they are in compliance will all applicable Federal, State, and local laws and regulations.

APPROVED by the Apprenticeship and Training Committee of Associated Independent Electrical Contractors of America, Inc. (National) as the National Advisory Committee, and by the Board of Directors of Associated Independent Electrical Contractors of America, Inc.:

Billy L. Askea	Smyrna, Ga.	Feb. 8, 1972
Billy L. Askea, First Vice-Pres (Acting President) AIECA	City	Date
Sidney J. Wolfenson	Hamden Texas	2-4-72
Sidney J. Wolfenson, Chairman Apprenticeship & Training Comm. AIECA	City	Date
James C. McBride	Atlanta Georgia	1 February 1972
James C. McBride, EdD National Director of Apprenticeship and Training, AIECA	City	Date

Standards Registered as incorporating the basic standards recommended by the Bureau of Apprenticeship and Training, US Department of Labor.

Hugh C. Murphy

MAR 29 1972

Hugh C. Murphy
Administrator
Bureau of Apprenticeship and Training

Date

LOCAL PROGRAM APPROVALS

LOCAL PROGRAM ADOPTED by the _____ Chapter, AIECA, this _____ day of _____, 19__:

Chapter President

Chairman, Chapter Apprenticeship and Training Committee

Authorized Official, Registration Agency

Date

May 1972

Amarillo, Texas
Arlington, Texas
Atlanta, Georgia
Austin, Texas
Bedford, Texas
Bellaire, Texas
Bethany, Oklahoma
Birmingham, Alabama
Brady, Texas
Brownsville, Texas
Burleson, Texas
Cameron, Texas
Cedar Falls, Iowa
Chamblee, Georgia
Charleston, South Carolina
Clarkston, Georgia
Colleyville, Texas
Copperas Cove, Texas
Dallas, Texas
Decatur, Georgia
Del Rio, Texas
DeSoto, Texas
Doraville, Georgia
Duncanville, Texas
Edinburg, Texas
Edmond, Oklahoma
El Paso, Texas
Emhouse, Texas
Euless, Texas
Fairfield, Alabama
Fort Worth, Texas
Friendswood, Texas
Gainesville, Texas
Garland, Texas
Grand Prairie, Texas
Haltom City, Texas
Harlingen, Texas
Hillsboro, Texas
Houston, Texas
Hueytown, Alabama
Hurst, Texas
Irving, Texas
Jacksonville, Florida
Keller, Texas
Kennesaw, Georgia
Kingsland, Texas
Lancaster, Texas
LaPorte, Texas
Lawrenceville, Georgia
Lewisville, Texas
McAllen, Texas
Mableton, Georgia
Marietta, Georgia
Mercedes, Texas
Mesquite, Texas
Mission, Texas
Moore, Oklahoma
Nashville, Tennessee
New Braunfels, Texas
Noble, Oklahoma
Norman, Oklahoma
Odessa, Texas
Oklahoma City, Oklahoma
Orlando, Florida
Pasadena, Texas
Pensacola, Florida
Perry, Oklahoma
Pflugerville, Texas
Pharr, Texas
Phoenix, Arizona
Raymondville, Texas
Richardson, Texas
Round Rock, Texas
Royal, Arkansas
St. Louis, Missouri
San Antonio, Texas
Savannah, Georgia
Scottsdale, Arizona
Seguin, Texas
Smyrna, Georgia
Snellville, Georgia
Stockbridge, Georgia
Stone Mountain, Georgia
Tempe, Arizona
Temple, Texas
Thunderbolt, Georgia
Tomball, Texas
Tucker, Georgia
Tulsa, Oklahoma
Tuttle, Oklahoma
Waco, Texas
Weatherford, Texas
Weslaco, Texas
Whitney, Texas
Wichita Falls, Texas
Wills Point, Texas

PURPOSE OF A.I.E.C.A.

The objectives of this association shall be: to promote the interests of its members, which are to be composed of electrical contractors, regardless of their labor affiliation, for their mutual protection; to promote efficiency in the conduct of their business; to eliminate unwise and unfair business practices; to protect its members against unfair or unjust taxes and legislative enactments; to endeavor to secure sound and just legal protection to the independent electrical contracting industry; to advise and assist members in the conduct of their own businesses; to promote high standards and ethical business practices; to advance the interests of independent electrical contractors in all branches of the electrical industry; to assist in the formation of association chapters throughout the United States; to the end that public interest may be better served and that the independent electrical contracting business may be permanently established on a sound and economic basis.

Apprenticeship and Training

Beginning . . . or End?

To form habits or impart proficiency by teaching is an accepted definition of training. This is the goal of apprenticeship training. But is the goal realized completely when the individual crosses that dividing line between apprentice and journeyman? Where do we go from here? The learning process does not end with graduation.

What can we do with this restless, growing giant of an industry? We can be prepared for the future by doing the following:

1. Keep our training updated.
2. Continue to train beyond apprenticeship.
3. Provide special training when needed.
4. Search for more effective means of training.

"Every man owes a part of his time and money to the business or industry in which he is engaged. No man has a moral right to withhold his support from an organization that is striving to improve conditions within his sphere."

Theodore Roosevelt–

A NON–PROFIT NATIONAL ASSOCIATION
GROWING IN NUMBERS AND EXPANDING IN SERVICES, SINCE 1956

EXECUTIVE VICE PRESIDENT: DONALD A. HOFFMANN, CAE
NATIONAL OFFICE: 1907 NORTH LAMAR, SUITE 302
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